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=> s drosophila and (MHC (5N) (class (1N) II))  
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The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s drosophila and (MHC (5N) (class (1N) II))  
L1 71 DROSOPHILA AND (MHC (5N) (CLASS (1N) II))

=> dis l1 and pd<19960523  
'AND' IS NOT A VALID FORMAT  
'PD<19960523' IS NOT A VALID FORMAT  
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=> s l1 and pd<19960523  
'19960523' NOT A VALID FIELD CODE  
3 FILES SEARCHED...  
L2 20 L1 AND PD<19960523

=> s l1 and PD<19970522  
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3 FILES SEARCHED...  
L3 22 L1 AND PD<19970522

=> s l3 not l2  
L4 2 L3 NOT L2

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L1 71 DROSOPHILA AND (MHC (5N) (CLASS (1N) II))

=> s l1 and PD<19960523  
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L2 20 L1 AND PD<19960523

=> dup rem l2  
PROCESSING COMPLETED FOR L2  
L3 13 DUP REM L2 (7 DUPLICATES REMOVED)

=> dis l3 1-13 ibib abs

L3	ANSWER 1 OF 13	CAPLUS	COPYRIGHT 2002 ACS	DUPLICATE 1
ACCESSION NUMBER:	1996:687854	CAPLUS		
DOCUMENT NUMBER:	126:30273			
TITLE:	An activated form of Notch influences the choice between CD4 and CD8 T cell lineages			
AUTHOR(S):	Robey, Ellen; Chang, David; Itano, Andrea; Cado, Dragana; Alexander, Heather; Lans, Deborah; Weinmaster, Gerry; Salmon, Patrick			
CORPORATE SOURCE:	Dep. Molecular and Cell Biology, Univ. California,			

SOURCE: Berkeley, CA, 94720, USA  
Cell (Cambridge, Massachusetts) (1996),  
87(3), 483-492  
CODEN: CELLS5; ISSN: 0092-8674

PUBLISHER: Cell Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Notch is a transmembrane receptor that controls cell fate decisions in *Drosophila* and whose role in mammalian cell fate decisions is beginning to be explored. The authors are investigating the role of Notch in a well-studied mammalian cell fate decision: the choice between the CD8 and CD4 T cell lineages. Here the authors report that expression of an activated form of Notch1 in developing T cells of the mouse leads to both an increase in CD8 lineage T cells and a decrease in CD4 lineage T cells. Expression of activated Notch permits the development of mature CD8 lineage thymocytes even in the absence of class I major histocompatibility complex (MHC) proteins, ligands that are normally required for the development of these cells. However, activated Notch is not sufficient to promote CD8 cell development when both class I and class II MHC are absent. These results implicate Notch as a participant in the CD4 vs. CD8 lineage decision.

L3 ANSWER 2 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1997:96681 BIOSIS  
DOCUMENT NUMBER: PREV199799395884  
TITLE: Cloning and expression of HSET, a kinesin-related motor protein encoded in MHC class II region.  
AUTHOR(S): Kuwana, T. (1); Erlander, M.; Peterson, P. A.; Karlsson, L.  
CORPORATE SOURCE: (1) R.W. Johnson Pharm. Res. Inst., Scripps Res. Inst., La Jolla, CA 92037 USA  
SOURCE: Molecular Biology of the Cell, (1996) Vol. 7, No. SUPPL., pp. 409A.  
Meeting Info.: Annual Meeting of the 6th International Congress on Cell Biology and the 36th American Society for Cell Biology San Francisco, California, USA December 7-11, 1996  
ISSN: 1059-1524.  
DOCUMENT TYPE: Conference; Abstract; Conference  
LANGUAGE: English

L3 ANSWER 3 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1997:139199 BIOSIS  
DOCUMENT NUMBER: PREV199799438402  
TITLE: Role of chain pairing and peptide occupancy for the production of functional soluble IA MHC class II molecules.  
AUTHOR(S): Scott, Christopher (1); Garcia, Christopher (1); Carbone, Frank; Wilson, Ian (1); Teyton, Luc; Johnson, P. R. I. R. W.  
CORPORATE SOURCE: (1) Dep. Mol. Biol., Scripps Res. Inst., 10666 North Torrey Pines Rd., La Jolla, CA 92037 USA  
SOURCE: Immunotechnology (Amsterdam), (1996) Vol. 2, No. 4, pp. 311.  
Meeting Info.: 1996 Keystone Meeting on Exploring and Exploiting Antibody and Ig Superfamily Combining Sites Taos, New Mexico, USA February 22-28, 1996  
ISSN: 1380-2933.  
DOCUMENT TYPE: Conference; Abstract  
LANGUAGE: English

L3 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1997:306163 CAPLUS  
DOCUMENT NUMBER: 126:327022  
TITLE: Reaper gene RPR product has common elements of structure with .gamma.-invariant chain, p53, MMTV and M proteins  
AUTHOR(S): Cipens, Gunars; Ievina, Nora  
CORPORATE SOURCE: Latvian Institute of Organic Synthesis, Riga, LV-1006, Latvia  
SOURCE: Proceedings of the Latvian Academy of Sciences, Section B: Natural, Exact and Applied Sciences (1996), 50(4/5), 214-219  
CODEN: PLABPF; ISSN: 1407-009X  
Latvian Academy of Sciences  
PUBLISHER: Journal  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Comparative amino acid codon root anal. of the reaper gene rpr product (RPR) and the MHC class II protein invariant .gamma.-chain (segment 137-202) indicated similarity and common origin of sequences. The corresponding RPR and .gamma.-IC peptide chain regions also have common structural elements with suppressor gene product p53, viral mouse mammary tumor virus (MMTV) and bacterial superantigens (streptococcal M proteins and staphylococcal enterotoxins). The obtained results have significance for studies of apoptosis inducer mechanisms.

L3 ANSWER 5 OF 13 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 2  
ACCESSION NUMBER: 96254265 EMBASE  
DOCUMENT NUMBER: 1996254265  
TITLE: The endogenous pathway of MHC class II antigen presentation.  
AUTHOR: Lechler R.; Aichinger G.; Lightstone L.  
CORPORATE SOURCE: Department of Immunology, RPMS, Hammersmith Hospital, Du Cane Road, London W12 0NN, United Kingdom  
SOURCE: Immunological Reviews, (1996) -/151 (51-79).  
ISSN: 0105-2896 CODEN: IMRED2  
COUNTRY: Denmark  
DOCUMENT TYPE: Journal; General Review  
FILE SEGMENT: 026 Immunology, Serology and Transplantation  
029 Clinical Biochemistry  
LANGUAGE: English

L3 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 3  
ACCESSION NUMBER: 1995:609267 CAPLUS  
DOCUMENT NUMBER: 123:30889  
TITLE: Soluble mouse major histocompatibility complex class II molecules produced in *Drosophila* cells  
AUTHOR(S): Wallny, Hans-Joachim; Sollami, Giuseppina; Karjalainen, Klaus  
CORPORATE SOURCE: Basel Institute for Immunology, Basel, CH-4005, Switz.  
SOURCE: Eur. J. Immunol. (1995), 25(5), 1262-6  
CODEN: EJIMAF; ISSN: 0014-2980

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The authors have exploited *Drosophila melanogaster* Schneider cells and compatible inducible expression vectors to produce large amounts of secreted major histocompatibility complex (MHC) class II molecules. (I-E<sub>d</sub>). A simple two-step purification protocol was developed. In the first step, recombinant molecules were enriched using a monoclonal anti-class II antibody column followed by a nickel chelate column which further purified and concentrated the recombinant protein to several mg/mL. Characterization of the purified material indicates that the molecules are correctly assembled into  $\alpha$ - $\beta$  heterodimers. Further analysis shows that the recombinant MHC class II molecules are devoid of endogenous peptides and, therefore, homogeneous peptide/MHC complexes could be prepared by adding exogenous I-E<sub>d</sub>-specific peptides at slightly acidic pH. Upon peptide addition, molecules underwent a conformational change into a more compact form revealed by gel filtration analysis. In addition, the peptide/MHC complexes were biologically active. As little as 10 ng of these complexes coated on plastic form a 100 ng/mL solution were sufficient to trigger antigen-specific T cell hybridomas. These MHC class II molecules, together with various forms of soluble T cell receptor (TcR) proteins, provide valuable tools to analyze the molecular details of TcR/antigen recognition.

L3 ANSWER 7 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1995:384722 BIOSIS  
DOCUMENT NUMBER: PREV199598399022  
TITLE: A dominant-negative mutant of the class II MHC transactivator CIITA.  
AUTHOR(S): Toth, C. R.; Jabrane-Ferrat, N.; Peterlin, B. M.  
CORPORATE SOURCE: Howard Hughes Med. Inst., Univ. California, San Francisco, CA USA  
SOURCE: 9TH INTERNATIONAL CONGRESS OF IMMUNOLOGY.. (1995) pp. 695. The 9th International Congress of Immunology. Publisher: 9th International Congress of Immunology San Francisco, California, USA. Meeting Info.: Meeting Sponsored by the American Association of Immunologists and the International Union of Immunological Societies San Francisco, California, USA July 23-29, 1995  
DOCUMENT TYPE: Conference  
LANGUAGE: English

L3 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1993:252864 CAPLUS  
DOCUMENT NUMBER: 118:252864  
TITLE: Antigen entry into early endosomes is insufficient for MHC class II processing  
AUTHOR(S): Niebling, Wendy L.; Pierce, Susan K.  
CORPORATE SOURCE: Dep. Biochem. Mol. Biol. Cell. Biol., Northwestern Univ., Evanston, IL, 60208, USA  
SOURCE: J. Immunol. (1993), 150(7), 2687-97  
CODEN: JOIMA3; ISSN: 0022-1767  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Helper T-cell recognition of antigen (Ag) requires that the Ag be processed and presented by class II-expressing Ag-presenting cells. Processing involves the introduction of Ag into acidic compartments where proteolysis occurs producing peptides that bind to the class II molecules. Ag bound to the transferrin receptor (TfR), which cycles predominantly through early endosomal compartments, does not enter the processing pathway. Cytochrome c (c) covalently coupled to monovalent iron-satd. transferrin (Tf), (c-Tf), is not processed or presented significantly better than unconjugated c, indicating that the majority of cycling TfR does not enter compartments where processing proceeds. The conjugation of Tf to c does not affect its binding to the TfR. Moreover, c-Tf is presented at 1/100th the concentration of c alone. Crosslinking of c-Tf bound to the TfR using c-specific antibodies also results in efficient processing and presentation. Thus, the endosomal compartments through which Tf normally cycles are not sites of processing, whereas compartments into which cross-linked Tf is diverted allow efficient processing and presentation of Ag.

L3 ANSWER 9 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1993:365433 BIOSIS  
DOCUMENT NUMBER: PREV199396051108  
TITLE: Mhc-DRB and -DQA1 nucleotide sequences of three lowland gorillas: Implications for the evolution of primate Mhc class II haplotypes.  
AUTHOR(S): Kenter, Marcel; Otting, Nel; De Weers, Michel; Anholts, Jacqueline; Reiter, Christian; Jonker, Magreet; Bontrop, Ronald E. (1)  
CORPORATE SOURCE: (1) Dep. Chronic Infect. Dis., ITRI-TNO, P.O. Box 5815, 2280 HV Rijswijk Netherlands  
SOURCE: Human Immunology, (1993) Vol. 36, No. 4, pp. 205-218. ISSN: 0198-8859.  
DOCUMENT TYPE: Article  
LANGUAGE: English

AB Mhc-DRB and -DQA1 second-exon and -DRB 3'-untranslated-region nucleotide sequences of three lowland gorillas with no known family relationship with each other and of two HLA homozygous typing cell lines were determined and compared with published primate Mhc-DRB and -DQA1 sequences. Eleven distinct MhcGogo-DRB second-exon sequences were found, which represent the gorilla counterparts of the HLA-DRB1\*03, -DRB1\*10, -DRB3, -DRB5, and -DRB6 allelic lineages. One Gogo-DRB second-exon sequence does not have an obvious human counterpart and is tentatively designated Gogo-DRBY\*01. The gorilla equivalents of the HLA-DRB2 and -DRB8 loci were identified as judged on Mhc-DRB 3'-untranslated-region sequences. In addition, four different Gogo-DQA1 alleles belonging to three different allelic lineages were detected. The Mhc-DRB-DQA1 haplotypes of these gorillas were deduced based on the obtained Mhc-DRB and -DQA1 sequences and the two published Mhc-DRB haplotypes of the lowland gorilla *Sylvia*. All deduced Gogo-DQA1 haplotypes show gene constellations different from known HLA-DRB-DQA1 haplotypes, while some of the Gogo-DRB haplotypes presented here contain more DRB genes than the HLA-DRB haplotypes. Based on phylogenetic trees, bootstrap analyses, and the gorilla, chimpanzee, and human Mhc-DRB haplotypes described, we propose that at least two Mhc-DRB loci, here tentatively designated Mhc-DRBI and -DRBII, existed on an ancient primate Mhc-DRB haplotype. The Mhc-DRB1\*01, -DRB1\*02 (-DRB1\*15 and -DRB1\*16), -DRB1\*03 (-DRB1\*03, -DRB1\*08, -DRB1\*11, -DRB1\*12, -DRB1\*13, and DRB1\*14), and -DRB1\*10 allelic lineages and -DRB3 and -DRBY loci probably evolved from the hypothetical primate Mhc-DRBI locus, whereas the present primate Mhc-DRB2, -DRB4, and DRB6 loci originate from the ancient Mhc-DRBII locus

of this core primate Mhc-DRB haplotype.

L3 ANSWER 10 OF 13 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1993:241700 BIOSIS  
DOCUMENT NUMBER: PREV199344114900  
TITLE: Expression and characterization of MHC class II molecules in insect cells.  
AUTHOR(S): Pond, Leslie; Peterson, Per A.  
CORPORATE SOURCE: Dep. Immunol., The Scripps Res. Inst., La Jolla, CA 92037 USA  
SOURCE: Journal of Cellular Biochemistry Supplement, (1993) Vol. 0, No. 17 PART C, pp. 71.  
Meeting Info.: Keystone Symposium on Emerging Principles for Vaccine Development: Antigen Processing and Presentations Taos, New Mexico, USA February 8-14, 1993  
ISSN: 0733-1959.  
DOCUMENT TYPE: Conference  
LANGUAGE: English

L3 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1993:167192 CAPLUS  
DOCUMENT NUMBER: 118:167192  
TITLE: Virus infection blocks the processing and presentation of exogenous antigen with the major histocompatibility complex class II molecules  
AUTHOR(S): Dománico, Susan Z.; Pierce, Susan K.  
CORPORATE SOURCE: Dep. Biochem., Mol. Biol. Cell Biol., Northwestern Univ., Evanston, IL, 60208-3500, USA  
SOURCE: Eur. J. Immunol. (1992), 22(8), 2055-62  
CODEN: EJIMAF; ISSN: 0014-2980  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Helper T cell recognition of antigen requires that antigen be processed and presented by class II-expressing antigen-presenting cells (APC). Many antigens presented by the immune system are part of infectious organisms, for example, bacteria and viruses, which themselves may affect APC function. Here is shown that infection of B cell lines as APC with viruses of 2 different families, namely, influenza A or vaccinia, completely block processing and presentation of an exogenous globular protein antigen pigeon cytochrome c (pc). The block appears to be primarily within the processing pathway, as virus infection has little effect on the presentation of an antigenic peptide of pigeon cytochrome c which does not require processing. It is likely that several steps in the processing pathway are affected. Only live infectious virus, not UV-inactivated virus blocks APC function, indicating that there is no competition of viral particles with pc for the class II processing machinery. As compared to uninfected cells, virus-infected cells internalize less antigen bound to surface Ig but degrade a similar portion of that which enters the cell. Virus infection results in reduced protein synthesis in APC which may also be a factor in decreasing APC function. Significantly, the processing of a high affinity evolutionary variant of cytochrome c from *Drosophila melanogaster* is reduced less by virus infection as compared to pc. Such knowledge may guide the selection of antigenic epitopes in vaccine design.

L3 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1993:206312 CAPLUS  
DOCUMENT NUMBER: 118:206312  
TITLE: A homolog of the *Drosophila* female sterile homeotic (fsh) gene in the class II region of the human MHC  
AUTHOR(S): Beck, Stephan; Hanson, Isabel; Kelly, Adrian; Pappin, Darryl J. C.; Trowsdale, John  
CORPORATE SOURCE: Imp. Cancer Res. Fund, London, WC2A 3PX, UK  
SOURCE: DNA Sequence (1992), 2(4), 203-10  
CODEN: DNSEES; ISSN: 1042-5179  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The RING3 gene maps in the class II region of the human major histocompatibility complex, at a CpG island distal of the HLA-DNA gene. RING3 CDNA3 were obtained from a T cell cDNA library and the longest (4 kb) was sequenced. The sequence contained an open reading frame encoding a protein of 754 amino acids. A screen of protein databases revealed striking homol. between the RING3 protein and the *Drosophila* female sterile homeotic gene (fsh) which is implicated in the establishment of segments in the early embryo. Partial sequence homol. was also obsd. with some other proteins involved in cell cycle control (CCG1), cell division (ftsA) and regulation of cell growth (.gamma. interferons). This highly conserved gene may play an important role in human development. In addn., its location in the MHC class II region may be related to some HLA-assocd. diseases.

L3 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 4

ACCESSION NUMBER: 1991:605461 CAPLUS  
DOCUMENT NUMBER: 115:205461  
TITLE: Characterization of naturally processed antigen bound to major histocompatibility complex class II molecules  
AUTHOR(S): Srinivasan, Mallika; Marsh, Eric W.; Pierce, Susan K.  
CORPORATE SOURCE: Dep. Biochem., Mol. Biol. Cell Biol., Northwestern Univ., Evanston, IL, 60208-3500, USA  
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (1991), 88(18), 7928-32  
CODEN: PNASA6; ISSN: 0027-8424  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Previous studies showed that the MHC class II, I-Ek mols. purified from antigen presenting cells that had processed *Drosophila melanogaster* cytochrome c (DMC) contained functional, processed antigen-I-Ek complexes. This was demonstrated by the ability of purified I-Ek, incorporated into liposomes, to stimulate DMC-specific T cells in the absence of any addnl. antigen. Here the isolation and characterization of the processed antigen bound to I-Ek is described. This was accomplished using DMC radiolabeled across its entire length by reductive methylation of its lysine residues, allowing an anal. of the totality of processed antigen bound to MHC class II mols. After processing, only about 0.2% of the I-Ek mols. contained processed DMC (.apprxq.800 per cell), yet these were sufficient to stimulate specific T cells. The DMC peptides isolated from the I-Ek mols. showed only two predominant radioactive peaks as analyzed by reverse-phase chromatog. Less processed antigen was bound to purified I-Ak mols., and these peptides were distinct from those bound to I-Ek.

The assocn. of processed DMC with the I-Ek and I-Ak mols. appears highly specific in that no radiolabeled peptides were isolated from purified MHC class I mols., Kk and Dk, or from the B-cell differentiation antigen B220. The majority of processed antigen-I-Ek complexes migrated more slowly than the majority of the I-Ek protein as analyzed by SDS/PAGE under nonreducing conditions without heating of the sample. This form of I-Ek may be analogous to the earlier described floppy form of MHC class II mols. Since newly processed antigen binds nearly exclusively to this slow-migrating form, it may be of functional significance.

=> dis his

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L1 71 S DROSOPHILA AND (MHC (5N) (CLASS (1N) II))  
L2 20 S L1 AND PD<19960523  
L3 13 DUP REM L2 (7 DUPLICATES REMOVED)